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10/552,389	10/07/2005	Donald B Warfield	SL1226	4758

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CAROL WILSON
BP AMERICA INC.
MAIL CODE 5 EAST
4101 WINFIELD ROAD
WARRENVILLE, IL 60555

EXAMINER	
SAVANI, AVINASH A	

ART UNIT	PAPER NUMBER
3749	

NOTIFICATION DATE	DELIVERY MODE
04/05/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Carol.Wilson@bp.com
bppatentus@bp.com
MaryJo.Kucharski@bp.com

Office Action Summary	Application No.	Applicant(s)	
	10/552,389	WARFIELD ET AL.	
	Examiner	Art Unit	
	AVINASH SAVANI	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. The following action is in response to the applicant's Amendment dated 12/17/2009, that was in response to the Office action dated 7/30/2009. Claims 1-6 and 8-24 are pending, claims 1, 2, 4, 5, 8-11, 14-19 and 23-26 have been amended, while claims 3, 6, 12, 13 and 20-22 are presented as originally claimed, while claim 7 has been cancelled and claim 27 is presented as new.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 2, 4, 5, 8-11, 14-19 and 23-26 have been considered but are moot in view of the new ground(s) of rejection. The examiner still contends that Brody and Maeder are properly applied prior art, despite being non-analagous. The previous rejections, however will be withdrawn in light of the newly found art. Applicant is directed to the examiner's note below.

Claim Objections

3. Claims 4-6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 4-6 bring in limitations that do not agree with the preamble, i.e. reference to the inserts. Either the limitation must be cancelled, or the preamble changed to be of an assembly of some sort. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation of "said length comprises about 60 inches to about 65 inches". The claim will be interpreted in such a manner that the length is about 60 inches.

Examiner's Note

6. Regarding claims 14 and 17, if claim amendments are properly amended as suggested, claims 14 and 17, and those that depend there from, will be in condition for allowance. Claim 14, if amended with the limitation "wherein said first pan is used for installing at least one of the solar modules during use" at line 4, after "first pan" and similarly adding "wherein said second pan is used for installing at least one of the solar modules during use" at line 14 after "second pan", can be placed in condition for allowance. Claim 17, if amended with certain limitations regarding steps in removing the inserts for the installation process [supported in applicant's specification paragraph 0040], can be placed in condition for allowance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-3, 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al [6065255].

10. With respect to claim 1, Stern discloses: A pan (14) for installing solar modules (16), said pan comprising: a length of material having a trough-shaped cross-section which forms a trough [see FIG 4], said trough having a bottom, two sides (17) extending upward from said bottom, and a relatively horizontal flange (18) at the top of each of said sides. Stern however does not disclose the length as further claimed. This limitation is believed to be one of design choice wherein a person of ordinary skill in the art would have found it obvious to have the pan according to the length because they are aware that roofs come in different sizes, and claiming the length to be about 60 inches is one of design rather than criticality.

11. With respect to claim 2, Stern discloses: The pan of claim 1 further comprising: spaced holes (36, 38) through said bottom, said horizontal flange, or through said bottom and said horizontal flange [see FIG 8, col 4, line 2-3].

12. With respect to claim 3, Stern discloses: The pan of claim 2 wherein said material is non- corrodible [col 4, line 64-67]. According to the applicant's specification, the non-corrodible material can be aluminum, plastic or the like.

13. With respect to claim 23, Stern discloses: The pan of Claim 1 wherein said trough-shaped cross- section is a V-shaped cross-section and wherein said sides are sloping sides extending upward from said bottom [see FIG 4].

14. Claims 4-6, 14-16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al ['255], further in view of Pater [4353466].

15. With respect to claim 4, Stern discloses the pan of claim 2, however does not further disclose the insert.

16. With respect to claim 5, Stern discloses the pan of claim 2, however does not disclose the plurality of inserts as further claimed.

17. With respect to claim 6, Stern discloses the pan of claim 5, however does not disclose the friction fitted insert.

18. With regard to claims 4-6, Stern discloses the pan for securing a solar panel, however Pater teaches an insert capable of securing solar panels as is the understood intended use of the applicant's inserts. Bucko teaches an insert comprising at least one shipping insert [see FIG 1], each of said shipping inserts having at least one slot [see FIG 3] adapted to receive the edge of a solar module and each of the shipping inserts having a shape conformed to the trough, wherein each of said shipping inserts position generally transverse to said length of said pan [col 3, line 21-33]. The insert is believed to fitted within the log support (48) via a friction-fitting in that the insert is secured along

the sides of the crate. It is also seen that if used with Stern, the insert of Pater could support the edges of the solar panel via the vertical slots and can be friction-fitted to fit in the trough if shaped properly. In view of Pater, an insert is provided that is adapted to secure an edge of a solar panel. It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a shipping insert as claimed because the type described has been known to offer a safe securing structure for shipping, and the slots offer a compact spacing during shipping, yielding the predictable result of when applied to the structure of Stern would secure an edge of the solar panel without causing any damage to the panel.

19. With respect to claim 14, Stern discloses a solar support member wherein a length of a material having a trough-shaped cross-section which forms said trough [see Fig 4], but does not teach a method of packaging the solar modules.

20. With respect to claim 15, Stern discloses the pan as claimed, but does not disclose the method of claim 14.

21. With respect to claim 16, Stern does not further teach the method of claim 15.

22. With regard to claims 14-16, Stern teaches an apparatus usable with the method claimed, however Pater teaches the specifics of the method. Pater teaches placing insert (44) between to wall members, wherein it is seen that the inserts have parallel slots which would inherently align with the other slots of adjacent inserts, wherein the glass would be analogous to the edge of the solar panel and can be placed into the slot, wherein providing multiple slots would be obvious for reasons of optimization. It is seen that a protector is also used as claimed, and of which are secured. In view of Pater, the

inserts (44), if shaped properly can be used with the pans of Stern to provide a shipping package. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the inserts and method as claimed because it was known that the slots provide a secure positioning means so that assembling of a package is compact and safe from damage, yielding the predictable result that protectors can be added to complete the package. Pater further shows each of said first spaced shipping inserts having a shape conformed to said trough and each of said first shipping inserts position generally transverse to said length of said first pan, and same applies to the second pan.

23. With respect to claim 25, Stern discloses the method of Claim 14 wherein said trough-shaped cross- section is a V-shaped cross-section [see FIG 4].

24. With respect to claim 27, Stern discloses the method of claim 14, however does not disclose the length as further claimed. This limitation is believed to be one of design choice wherein a person of ordinary skill in the art would have found it obvious to have the pan according to the length because they are aware that roofs come in different sizes, and claiming the length to be about 60 inches is one of design rather than criticality.

25. Claims 8, 9, 11, 17, 18, 20, 21, 24 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Stern ['255], further in view of Wagner et al [5164020].

26. With respect to claim 8, Stern discloses: An solar array mounted on a roof, support structure or the like, said array comprising [see FIG 1]: a plurality of pans (14) positioned in spaced, parallel rows on said roof or support structure, each pan

comprising a length of material having a trough- shaped cross-section which forms a trough [see FIG 4], said trough having a bottom, two sides (17) extending upward from said bottom, and a relatively horizontal flange (18) at the top of each of said sides; means for connecting said pans to said roof or support structure [see FIG 2, col 3, line 28-30]; a plurality of solar modules (16); and means for securing said solar modules to said flanges of said pans [col 3, line 50-53], however does not disclose the clips as further claimed. Wagner teaches a similar means of securing solar panels to roofs wherein said means for securing .said solar modules to said flanges comprise clip affixed, to said flanges by bolts, wherein said bolts pass through, said clips and into said flanges [see FIG 10]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use clips to secure the solar panel because the technique was known to tightly secure the panel and keep it affixed in harsh weather conditions.

27. With respect to claim 9, Stern discloses: The solar array of claim 8 wherein said means for securing said solar modules to said flanges is comprised of an adhesive [col 3, line 50-53].

28. With respect to claim 11, Stern discloses: The array of claim 8 wherein said bottom of each pan have preformed holes (38) therethrough and wherein said means for connecting said pans to said roof or support structure comprises a fastener (13, 15) passing through each of said preformed holes in said bottom of each of said pans and through corresponding holes in said roof or support structure [see FIG 2, col 3, line 28-30].

29. With respect to claim 17, Stern discloses: A method of installing an array of solar modules onto a roof or the like, said method comprising [col 2, line 26-32]: positioning a plurality of pans (14) on said roof, each of said pans comprised of a length of material having a trough-shaped cross-section which forms a trough, said trough having a bottom which is attached to said roof, two sloping sides extending upward from said bottom, and a relatively horizontal flange at the top of each of said sides [see FIG 4]; securing said pans to said roof [col 2, line 65-66]; securing said solar modules to said flanges of adjacent pans [col 3, line 50-53], however does not disclose the clip as further claimed. Wagner teaches a similar securing device wherein securing said solar modules to said flanges of adjacent pans, with clips affixed to said flanges by bolts, wherein said bolts pass through said clips and into said flanges [see FIG 10]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use clips to secure the solar panel because the technique was known to tightly secure the panel and keep it affixed in harsh weather conditions.

30. With respect to claim 18, Stern discloses: The method of claim 17 wherein said solar modules are secured to said flanges by adhesive [col 3, line 50-53].

31. With respect to claim 20, Stern discloses: The method of claim 17 wherein the step of attaching said pans to said roof comprises: positioning each pan in its desired position on the roof [see FIG 1]; drilling holes through the roof; passing a fastener (15) through the drilled holes and anchoring said fastener to said roof [col 3, line 28-30]; and securing said pan to said fastener [see FIG 1].

32. With respect to claim 21, Stern discloses: The method of claim 20 wherein said holes (36, 38) in said bottom of said pan are preformed [see FIG 8, col 4, line 2-3]. Holes being provided imply that they are preformed.

33. With respect to claim 24, Stern discloses: The solar array of Claim 8 wherein said trough-shaped cross-section is a V-shaped cross-section and wherein said sides are sloping sides extending upward from said bottom [see FIG 4].

34. With respect to claim 26, Stern discloses: The method of Claim 17 wherein said trough-shaped cross-section is a V-shaped cross-section and wherein said sides are sloping sides extending upward from said bottom [see FIG 4].

35. Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al ['255], further in view of Shingleton [20030070368].

36. With respect to claim 10, Stern discloses the solar array of claim 8, however does not disclose the clips for the means of securing. Shingelton teaches a similar device wherein a clip is used to secure a solar module to a flange [see FIG 3]. In view of Shingelton, the clip is used to secure the solar module to the pan. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a clip for a means of securing because the technique was known in the art, yielding the predictable result of easily removing or securing the panel with the clamping action of the clip.

37. With respect to claim 19, Stern discloses the method of claim 17, however does not disclose the clips for the means of securing. Shingelton teaches a similar device wherein a clip is used to secure a solar module to a flange [see FIG 3]. In view of

Shingelton, the clip is used to secure the solar module to the pan. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a clip for a means of securing because the technique was known in the art, yielding the predictable result of easily removing or securing the panel with the clamping action of the clip.

38. Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al ['255], Wagner ['020], further in view of Brody [4180958].

39. With respect to claim 12, Stern discloses the array of claim 11 having a fastener however does not further disclose the details of the fastener, although it is understood that any mechanical fastener can be used [col 3, line 50-53]. Brody teaches a similar fastener used to secure a solar module to a roof [col 2, line 15-19], wherein the fastener is a threaded element having an expandable anchor (18) on the lower end thereon; and a nut (28 or 30) threaded onto the top of said threaded element [see FIG 1]. In view of Brody, the use of an expansion anchor securely fastens an apparatus to a roof. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the fastener as claimed because the option was known in the art, yielding the predictable result of being capable of supporting a heavy structure on a roof.

40. With respect to claim 22, Stern discloses the method of claim 20, however does not further disclose the details of the fastener, although it is understood that any mechanical fastener can be used [col 3, line 50-53]. Brody teaches a similar fastener used to secure a solar module to a roof [col 2, line 15-19], wherein the fastener is a threaded element having an expandable anchor (18) on the lower end thereon; and a

nut (28 or 30) threaded onto the top of said threaded element [see FIG 1]. In view of Brody, the use of an expansion anchor securely fastens an apparatus to a roof. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the fastener as claimed because the option was known in the art, yielding the predictable result of being capable of supporting a heavy structure on a roof.

41. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al ['255], Wagner ['020], further in view of Maeder [DE 20209892].

42. With respect to claim 13, Stern discloses the array of claim 11, wherein there are a plurality of rows or pans [see FIG 1], however does not disclose the telescoping feature as claimed. Maeder teaches a similar support used for solar panels wherein the pans are telescoped within end to end [see FIG]. In view of Brody, a bottom end of one of said pan is telescoped within a top end of an adjacent pan. It would have been obvious to a person of ordinary skill in the art at the time of the invention to telescope the supports because the technique was known in the art, yielding the predictable result of saving space and creating a desired length of support.

Conclusion

43. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AVINASH SAVANI whose telephone number is (571)270-3762. The examiner can normally be reached on Monday- Friday, alternate Fridays off, 7:30-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Avinash Savani/
Examiner, Art Unit 3749

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749

/A. S./
3/36/2010